Early Journal Content on JSTOR, Free to Anyone in the World

This article is one of nearly 500,000 scholarly works digitized and made freely available to everyone in the world by JSTOR.

Known as the Early Journal Content, this set of works include research articles, news, letters, and other writings published in more than 200 of the oldest leading academic journals. The works date from the mid-seventeenth to the early twentieth centuries.

We encourage people to read and share the Early Journal Content openly and to tell others that this resource exists. People may post this content online or redistribute in any way for non-commercial purposes.

Read more about Early Journal Content at http://about.jstor.org/participate-jstor/individuals/early-journal-content.

JSTOR is a digital library of academic journals, books, and primary source objects. JSTOR helps people discover, use, and build upon a wide range of content through a powerful research and teaching platform, and preserves this content for future generations. JSTOR is part of ITHAKA, a not-for-profit organization that also includes Ithaka S+R and Portico. For more information about JSTOR, please contact support@jstor.org.

THE UNIVERSITY OF NORTH DAKOTA

Historical Sketch

A brief survey of the work done by the University and the outlook for future research in it may not be amiss. In a relatively new community, as in North Dakota, emphasis has naturally been laid primarily on development of the state's resources. To this end the State Geological Survey, established in 1895, in cooperation with the U. S. Geological Survey, has been studying the coal, clay, cement and water resources of the state, as a result of which lignite beds covering an area of more than 30,000 square miles have been located, as well as extensive deposits of clay and cement. The Survey has already published six reports on the topography, geology and mineral resources of the state, while a seventh dealing with the underground waters is in preparation.

The utilization of these resources has been made possible through the work of the State School of Mines, located at the University, and its sub-station at Hebron, working in conjunction with the engineering school of the university. Valuable methods of utilization of lignite, the manufacture of briquets and the use of gaseous by-products has been developed, largely as a result of which the U. S. Bureau of Mines is establishing a large briquetting plant in North Dakota as an experiment, which if successful will be later turned over to private management for operation. The possibility of the manufacture of high grade pottery and fire clay from North Dakota clays has been demonstrated through these researches. Recognition of the work of the head of the School of Mines, Dean E. J. Babcock, was accorded by his appointment during the war as the North Dakota representative of the industrial Preparedness Committee, as a member of the Advisory Committee for North Dakota of the Federal Fuel Administration, as well as to other posts of executive responsibility.

Extensive studies of the surface waters and drainage areas of North Dakota and Minnesota have been made by Prof. E. F. Chandler, head of the Department of Civil Engineering in the University, acting as Assistant Engineer of the U. S. Geological Survey.

The State Public Health Laboratory is a department of the University, and in conjunction with the U. S. Public Health Service conducts a survey of sanitary conditions throughout the state.

An important adjunct of the University is the Biological Station at Devils Lake, established in 1909 for the study of the aquatic resources of North Dakota. As a result of its studies a series of papers have been published on the plants and animals of North Dakota in relation to their environment, and several others are now in press or preparation. In this study it has cooperated with the U. S. Biological Survey and the Museum of Zoology of the University of Michigan, as well as with specialists in many other institutions. The extensive researches on wireless telegraphy conducted at the University by Dr. A. H. Taylor, formerly Professor of Physics, led to his call from the U. S. Navy Department, during the war to take charge of the radio work on the Great Lakes, and later that of the Atlantic Coast.

But while the main trend of science at the University has been economic, pure science has not been neglected. An account of work done or in progress in this field would be impossible in so brief a compass, but as an example of the recognition accorded to this work may be mentioned the grant of money by the American Academy of Arts and Sciences to Dr. B. J. Spence, formerly Head of the Physics Department, for his investigation of infra-red spectra and optical pyrometry, and of similar assistance by the Missouri Botanical Garden to Dr. N. E. Pfeiffer, Assistant Professor of Botany, for a monograph of the genus Isoetes. Graduates in science of the University have been recognized by the other universities of the county such as Yale, Princeton and the University of California, as worthy of fellowship appointments, and many of these graduates are now occupying important posts in industrial and academic life.

The University maintains a Quarterly Journal, devoting one issue yearly to the physical and natural sciences, wherein is recorded the work of members of its staff as well as of those from other institutions. An exchange professorship with the University of Manitoba affords opportunity for an exchange of thought in scientific and other lines, between the University and its sister institution in Canada. Largely through the activity of members of the University there was organized several years ago the State Academy of Science, whose annual meetings afford opportunity for scientific association among members of the various institutions in the state; while the local faculty maintains a Science Club, at whose monthly meetings the work of the various members is discussed.

Installation of the North Dakota Chapter

Application for a Sigma Xi charter at the University of North Dakota was made to the Executive Committee in 1916, but the ensuing war with the consequent unsettled conditions delayed action at that time and it was deemed desirable to submit a supplementary petition in 1919. This petition received favorable consideration from the committee and upon its recommendation the general convention of the society held in St. Louis, December 30, 1919, voted unanimously to grant a charter to the petitioners at the University of North Dakota with the provision that undergraduates be elected to associate membership only.

The chapter was organized with the following persons as charter members:

Benjamin Junior Clawson (Kansas)	*Professor of Pathology*
Leonard Percy Dove (Northwestern)	*Instructor in Geology*
Raymond Royce Hitchcock (Northwestern)	*Professor of Mathematics*
David Rhys Jenkins (Colorado)	*Professor of Electrical Engineering*
Ernest Frederick Peterson (Colorado)	*Instructor in Engineering*
Norma Etta Pfeifer (Chicago)	*Assistant Professor of Botany*
Bartholomew John Spence (Illinois)	*Professor of Physics*
John Welhoff Todd (Columbia)	*Associate Professor of Psychology*
Harry Clyde Trimble (Chicago)	*Assistant Professor of Chemistry*
Robert Thompson Young (Nebraska)	*Professor of Zoology*

Robert Thompson Young was elected president, Bartholomew John Spence vice-president, and Benjamin Junior Clawson secretary and treasurer.

The installation ceremonies occurred on June 3, 1920. Dean Lauder W. Jones, of the Engineering School of the University of Minnesota, acting as the installing officer. In his installation of the new chapter, Dean Jones pointed out the ideals and opportunities of the man of science in the following happy remarks:

"The establishment of a chapter of Sigma Xi in any university is an event of the first magnitude in the history of that institution. For, on such an occasion those who have dedicated themselves singly to the high ideals of scholarship and research in the various fields of science, consent to bind themselves jointly by the noble pledges of Sigma Xi in order that they may secure mutual cooperation as Companions in Zealous Research.

"I take it that you, as alumni members, have had opportunity in the past to enjoy the privileges which companionship in Sigma Xi affords; and that you welcome this occasion and rejoice that here, in North Dakota, a new chapter is about to be installed through which you may once more renew your pledges to the high ideals of associated scholarship which this event is intended to promote.

"Those who are familiar with the history of Sigma Xi, know that from its very inception this Society has demanded of its initiates recognition of all the essential ideals which every true scholar is bound to consider fundamental. The first printed constitution contains a beautiful passage, which places in bold relief a prerequisite for brotherhood in Sigma Xi, not usually enumerated when the qualifications for membership are summed up, possibly because among men of science this particular quality is taken for granted as a primitive basis upon which any true companionship in research must rest. Permit me to read a few sentences from this remarkable passage.

" 'Friendship in Science . . . . . While those whose heart and soul are in their work are coping with the great problems of nature, let them remember that the ties of friendship cannot be investigated but only felt. Let them join heart and hand, forming a brotherhood in science and engineering, thus promoting and encouraging by those strong personal attachments of friendship the highest and truest advances in the scientific field.'

"To the uninitiated who are prone to regard the man of science as a recluse, so absorbed in the pursuit of his chosen problems that he cares but little for relationships which do not contain elements closely akin to his investigations, this declaration of principles will seem to present a striking contrast. But we, men of science, know full well that the old realm of science in which our early predecessors worked, at all times threatened by a hostile world about them where superstition and bigotry compelled the investigator to conceal rather than to reveal his discoveries, has passed forever. In the world today men of science in all quarters of the globe are firmly knit together by their common interests, and all men with the eagerness of children about to enjoy a holiday await the announcement of new discoveries accomplished by research.

"This intimate comradeship in scientific research has resulted in a request from investigators in foreign lands for the establishment of chapters of Sigma Xi in their own countries in order that they may share with us in America the associations which this entails.

"As a member of the Executive Committee of Sigma Xi it was my fortune to be chosen to represent the National Society on the occasion of this day. I esteem it an honor to come to North Dakota, the nearest neighbor which the University of Minnesota has in the family of universities, with the duty of installing a chapter of Sigma Xi among you. The University of North Dakota is to be congratulated; for you, as members of its faculty, each with some special province in which contributions to science have been made, represent here an essential part of the living soul of this University, just as men engaged in research must do in every university.

"Let me charge you to proclaim the importance of your tasks. This must be done with no uncertain voice in a state university such as yours and mine; for, even in these days, there are men in high places who believe that it is not necessarily the function of a state to provide funds with which a state university may encourage and promote research in pure science. The aphorism of Michael Faraday which asserts that 'there is nothing so prolific of utilities as abstractions' has no meaning to such men. They classify research into two divisions, profitable and unprofitable, and insist that the state would spend its money foolishly, if they invested it in any form of research which could not show an immediate profit upon the investment.

"One of the hopeful signs of the times in the United States today is to be found in the fact that on all hands men in every walk of life are beginning to realize the interdependence of research of whatever character it may be, whether pure or applied, so-called profitable or unprofitable. For, on many occasions they have been base metal transmuted into gold. An insignificant fact recorded by 'pure' research on the pages of some massive tome, in fine print as a foot-note if you please, has suddenly sprung into prominence like a newborn star, and the morning papers have recorded this change in bold headlines across their pages; one day it was an obscure fact, worthless except to a specialist, the next day millions of people chattered about it and it filled the entire horizon with its brilliancy.

"The state of North Dakota, like that of Minnesota, is young as compared with many other states of the Union. This great Northwest is within a few hours' journey of the North Country where adventure may still be found, where there are primitive forests, streams rarely traversed by man and wild game in plenty. Our students, therefore, represent a sturdy group of young men and young women, many of them direct descendants of pioneers in this region. It will be your duty to guide many of these students who come under your charge so that a zeal for science and for its advancement may cause them to choose some one of its fields to which they may devote their energies. Sigma Xi has always emphasized the importance of establishing close relations with young students who may show an aptitude for science. Young men and young women of promise while they are still undergraduates should be encouraged by you to become associate members of Sigma Xi so that from their number a group of graduate students may be developed. The charter which I am to present to you today makes it possible for you to put a plan of this kind into operation here.

"I have been informed that Professor R. T. Young has been selected by you to be the first president of the North Dakota chapter. It is a very great pleasure to me to hand him the charter of your new chapter and at the same time to express to you my most sincere congratulations, coupled with the conviction that on the campus of North Dakota you will lay the foundations of a structure which some day will be more highly prized by the citizens of this State than any glorious memorial which they may erect with brick or stone."

Responding on behalf of the new chapter the president replied:
"Dean Jones,

As president of the North Dakota chapter of Sigma Xi it is both an honor and a pleasure for me to accept from you the charter which has been granted to us. We accept this honor with a full realization also of the responsibilities which devolve upon us to maintain the standards of the society at the University of North Dakota. We are living in the midst of wonderful opportunities for fruitful research, some of which we have already grasped but many more are yet awaiting us. As a nucleus of a group of companions in zealous research, we accept this recognition as a call to higher service.

"On behalf of my comrades and in the name of the University, I thank you."

Following the installation, initiation of the following newly elected members was held:

FROM THE FACULTY

EARL JAY BABCOCK, B.S., Sc.D. *Dean of the College of Engineering*

Development of the clay and coal of North Dakota. Publication in bulletins of the North Dakota Geol. Survey and School of Mines, the U. S. Bur. of Mines, etc.

ARTHUR DERMOTT BUSH, B.S., M.D.
Professor of Physiology and Pharmacology

Tobacco smoking and mental efficiency. N. Y. Med. Jour. Several articles on perfusion of the isolated medulla of the turtle, Jour. of Pharmacology.

FRANCIS ELWYN CHANDLER, B.A., M.A.
Professor of Civil Engineering

Water Resources of North Dakota. Publications in reports of State Engineer and State Geologist, Water Supply Papers of U. S. Geol. Survey, Trans. Am. Soc. Civ. Eng., etc.

ARTHUR GRAY LEONARD, B.A., M.A., Ph.D. *Professor of Geology*

Geology of North Dakota, especially clay and coal. Publications in reports of State Geologist, U. S. Geol. Survey, Bull. Geol. Soc. Am. etc.

AS ASSOCIATE MEMBERS

FRANZO HAZLETT CRAWFORD, S.B.	*Physics*
WILLIAM FREDERICK KEYE, B.S., M.S. Coal and betterment in its uses. Thesis.	*Mining Engineering*
PAUL T. NERHUS, B.S., M.S. Salts of Devil's Lake Water. Thesis.	*Chemistry*
HAROLD AKER NOBLE, B.S.	*Civil Engineering*
OTTO SANDVIK, B.S.	*Physics*

The exercises were followed by a banquet attended by the members and their ladies, with Dean Jones and President Kane as guests of honor. The president of the society acted as toastmaster, and toasts were responded to by Dean Jones, who spoke of the need of productive research in the life of the university, and President Kane, who pointed out the relation between original investigation and stimulating teaching. Responses on behalf of the new members were given by Dean Babcock and Mr. Keye, and a word of welcome was expressed by Dr. N. E. Pfeiffer for the charter members.

The convocation exercises of the University the following day were in charge of the chapter with the president presiding. At this meeting Dean Jones gave an address on Science and Industry, in which he called attention to some of the contributions of science to our economic life.

R. T. YOUNG, *President*